

S/079/62/032/012/008/008
D424/D507

AUTHORS: Ponomarev, A.I. and Klebanskiy, A.L.

TITLE: Bromination of octamethylcyclotetrasiloxane. III

PERIODICAL: Zhurnal obshchey khimii, v. 32, no. 12, 1962,
4022-4025

TEXT: Bromine does not react thermally with octamethylcyclotetrasiloxane at temperatures up to 150°C, and with ultra-violet irradiation the mixture resinifies even at room temperature. It is now found that octamethylcyclotetrasiloxane can be brominated smoothly with bromine chloride under the influence of the radiation from an electric lamp. The fact that no reaction takes place in the dark shows that it is a free radical reaction and not, like most reactions of bromine chloride, an ionic one. The action of 80 g of bromine, in the presence of the necessary amount of chlorine, on 636 g of octamethylcyclotetrasiloxane yielded 212 g (45.5% on the siloxane that had reacted) of monobromo derivative, 139 g (25.1%) of dibromo derivative, and 44.7 g (6.3%) of tribromo derivative. It was shown

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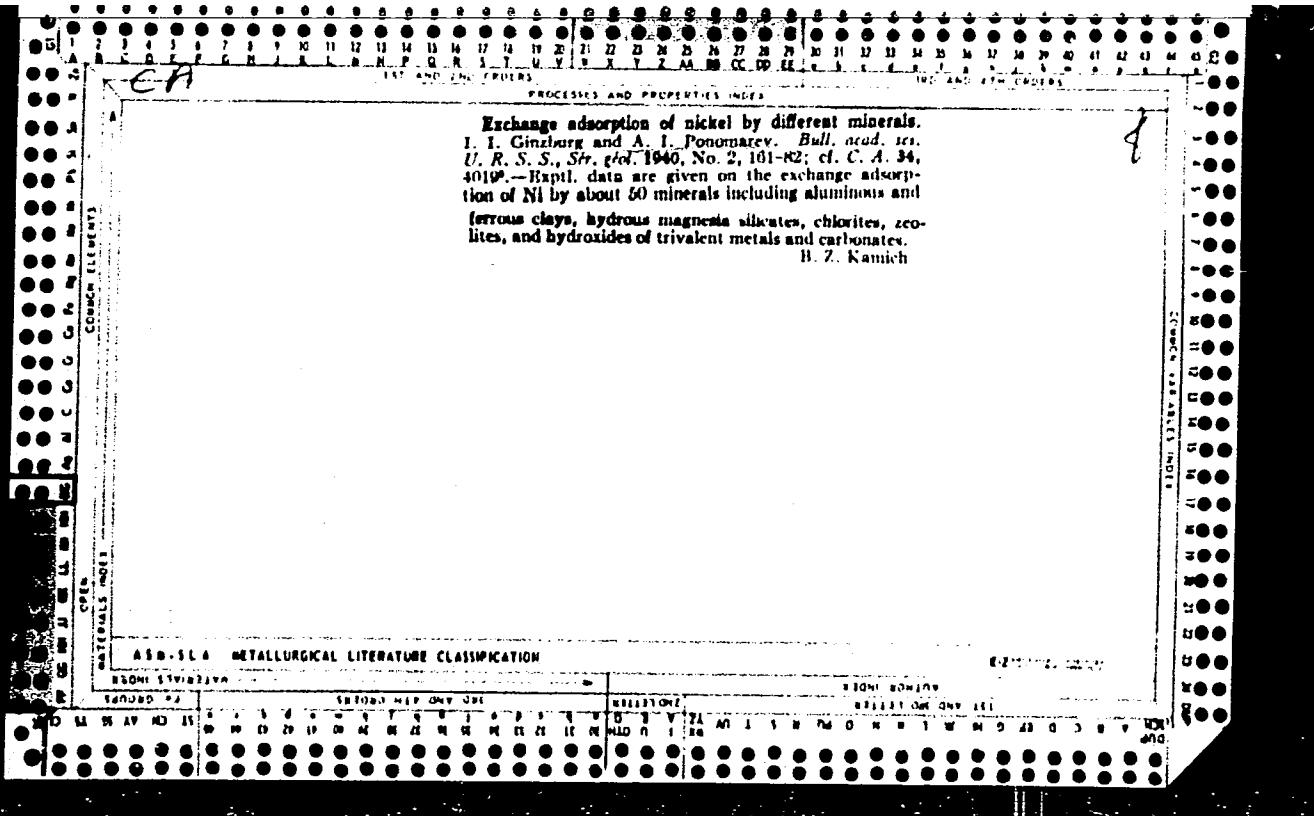
Bromination of ...

S/079/62/032/012/008/008
D424/D307

by hydrolysis of the dibromo and tribromo derivatives with potassium hydroxide and the isolation of methylene bromide and chloroform, respectively, in high yields that these compounds were dibromomethyl- and tribromomethylhexamethylcyclotetrasiloxanes, the latter compound being the first reported to contain a tribromomethyl group attached directly to a silicon atom. There is 1 table.

SUBMITTED: January 8, 1962

Card 2/2



1. PONOMAREV, A. I.
2. USSR (600)
4. Ocher - Yaroslavl' District
7. Report on the geological-prospecting activities at the Petrovsk ocher deposits in the Yaroslavl' District. (Abstract.) Izv. Glav.upr.geol.fon. no.3, 1947
9. Monthly List of Russian Accessions. Library of Congress. March 1953. Unclassified.

PONOMAREV, A.I.

PONOMAREV, A.I.; OSTROUMOV, E.A., doktor khimicheskikh nauk, redaktor;
KISELEVA, A.A., tekhnicheskiiy redaktor.

[Method of chemical analysis for minerals and rocks] Metody khi-
micheskogo analiza mineralov i gornykh porod. Moskva, Izd-vo Akad.
nauk SSSR, Vol 1 [Silicates and carbonates] Silikaty i karbonaty.
1951 334 p.

(MLRA 8:8)
(Silicates) (Carbonates(Mineralogy))
(Mineralogy, Determinative)

PONOMAREV, A.I.; OSTROUMOV, E.A., doktor khimicheskikh nauk, redaktor;
TOSKUTOV, I.P., redaktor; NEVRAYEVA, N.A., tekhnicheskiy redaktor.

[Methods of chemical analysis of minerals and rocks] Metody khimi-
cheskogo analiza mineralov i gornykh porod. Moskva, Izd-vo
Akademii nauk SSSR. Vol.2 [Iron ores, titanomagnetites and chro-
mites] Zheleznye rudy, titanomagnety i khromity, 1955. 343 p.
(Iron ores) (Chromites) (MLRA 8:11)
(Titanomagnetites)

PONOMAREV, A. I.

✓ 978. Colorimetric ferro-dipyridyl method of determining vanadium in iron ores. A. I. Ponomarev and L. L. Ratina (A. A. Bakov, Inst. Metal. Acad. Sci. Moscow). *Zavod. Lab.*, 1955, 21 (8), 918.

The method is based on the reaction between V^{VII} and Fe^{II} giving Fe^{II}, which can be determined colorimetrically with dipyridyl. Procedure—The ore (0.1 to 0.5 g) is fused with Na₂CO₃ and the melt is extracted with 50 to 70 ml of water. If the soln. is green, 3 or 4 drops of ethanol are added and the soln. is warmed to reduce and ppt. the Mn. The soln. is filtered through a paper previously washed with 5 per cent. Na₂CO₃ soln. and the residue is washed with hot 1 per cent. Na₂CO₃ soln., the residue then being rejected. With contents of V > 0.5 per cent, a second fusion with Na₂CO₃ is recommended. The filtrate is made acid to Congo red with HCl (1 + 1), the soln. is made up to 100 or 250 ml in a calibrated flask, and an aliquot portion is transferred to a cylinder and treated with HCl to give a concn. of 5 to 8 per cent. by vol. Freshly prepared 4 per cent. NaNO₂ soln. (6 ml) is added to reduce the V and, after 10 to 18 min., the excess of nitrite is destroyed by the addition of 1 g of urea. After 30 min., with occasional shaking, 1 ml of FeCl₃ soln. containing 0.1 mg of Fe and 1 or 2 ml of 0.5 per cent. dipyridyl soln. are added. The soln. is carefully neutralised by the dropwise addition of aq. NH₃. The end-point is reached when drops of aq. NH₃ no longer strengthen the pink-red colour of the iron complex or when Congo red paper changes colour. The soln. is made up to 100 ml with 2 per cent. borax or Na₂CO₃ soln. After 25 to 30 min. the colour intensity is compared with that of standards containing from 0.01 to 0.1 mg of Fe in 100 ml.

G. S. SMITH

V L
Distr: bE2c

✓ Applying antifriction or friction coatings on metals. A. I.
~~Ponomarev U.S.S.R. 107,052, Aug 25, 1957.~~ The coatings are applied by melting electrodes of the desired metals.

18

M. Hoch

PONOMAREV, A.I.; MELENT'YEV, B.N.; KOROSTELEV, P.P.

Chemical method for removing loam from silumin products. Trudy Inst.
met. no.2:92-94 '57. (MIRA 10:11)
(Silicon-aluminum alloys) (Founding)

PONOMAREV, A.I.

KLEBANSKIY, A.L.; PONOMAREV, A.I.

Producing m -trifluoromethylphenyl-methyldichlorosilane. Khim.nauka
i prom. 2 no.4:535-536 '57.
(MIRA 10:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo
kauchuka.

(Silane)

1468 Determination of platinum in the presence of
large amounts of titanium. Poroshnikov et
al. Ya. Shekotovskaya, A. Iakovleva, V.
Ivanov, A. G. Sivchenko, M. V. Tsvetkov,
A. A. Kostylev, N. V. Slobodchikova
Akad. Nauk SSSR, No. 3, 1968, p. 379.

A method is given for the determination of platinum
by reduction with tin(II) chloride followed by
titration with a standard solution of potassium
titanium(IV) sulfate. The method is applicable
to the analysis of various materials containing
 H_2SiF_6 . Reduction of the sample is carried out in
water at 100°C. The titration is carried out in
concentrated H₂SO₄ solution. The error of the
method does not exceed 5%. The detection limit
is mixed at 10% with tin(II) chloride.

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342120001-7

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342120001-7"

KLEBANSKIY, A.L.; PONOMAREV, A.I.; KUDINA, V.I.

Preparation of carboxymethylheptamethylcyclotetrasiloxane. Khim.
nauka i prom. 3 no.2:285-286 '58. (MIRA 11:6)

1. Nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im.
S.V. Lebedeva..
(Siloxanes)

GENEROZOV, Boris Alekseyevich; PONOMAREV, A.I., red.; PETRUSHA, L.F.,
red.izd-va; ISLETN'YEVA, P.G., tekhn.red.

[Industrial analysis in the metallurgical and coke industries]
Tekhnicheskii analiz v metallurgicheskem i koksokhimicheskem
proizvodstve. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po
chernoi i tsvetnoi metallurgii, 1959. 251 p. (MIRA 13:1)
(Metallurgical analysis) (Coke industry--Quality control)

Po N O M A R E y A. I.

Akademika Nauk SSSR. Institut nauchno-tehnicheskoy informatsii

Metallurgiya i metallovedeniye. Khimiya, metallovedeniye i obrabotka tita (Metallurgy and Metalworking; Chemistry, Metallurgy and Treatment of Titanium) Moscow, Izd-vo Akademiya Nauk SSSR, 1959, 383 p.

(Series: Itogi nauki i tekhnicheskikh nauk, 2) Errata slip inserted. 2,700 copies printed.

Ed.: N. V. Agrest. Corresponding Member, Academy of Sciences, USSR. Ed.: V. G. Schenkov; Tech. Ed.: Yu. V. Rybina.

Ed. or Publishing House: V. G. Schenkov. Properties of Titanium and Titanium Alloys. Properties of Titanium and

Titanium Alloys. Heat Treatment of Titanium and Titanium Alloys.

Coverage: The articles in this collection deal with the chemistry, metallurgy, and machining of titanium and titanium alloys. The articles are based on data appearing in the Refresher course for chemists and metallurgists from 1953 to 1955. For the most part the articles are based on non-Soviet material. No personal citations are mentioned. References follow each article.

Savitsky Ye. N., and N. A. Tylikina. Properties of Titanium and

Titanium Alloys. Heat Treatment of Titanium and

Titanium Alloys. This is a survey of the physical and mechanical properties of titanium and titanium alloys. Data are given on the effect of oxygen, nitrogen, hydrogen, and carbon on the mechanical properties of titanium.

Ogurcov, M. F., and L. D. Neftchikova. Heat Treatment of Titanium and Titanium Alloys.

The authors discuss work hardening, annealing, grain refining, and other heat-treating methods for titanium and titanium alloys. Also discussed are the effect of alloying elements on heat-treating characteristics, mechanical properties after heat treatment, and structural changes at heat treatment.

Arshansky, P. N. Thermochemical Treatment [Diffusion Coating] of

Titanium.

This article deals with the nitriding, boronizing, and siliconizing of titanium. Shchelok, A. Ye., A. M. Demchenko, and I. N. Pavlov. Forging of Titanium and Titanium Alloys.

The authors discuss the special features of plastic deformation, general characteristics of cold and hot working, individual forging operations, preparatory and finishing operations, organization of production, and storage and utilization of waste.

Shchelok, A. Ye., A. M. Demchenko, and I. N. Pavlov. Forging of Titanium and Titanium Alloys.

Recrystallization of magnesium-reduced and iodide titanium is discussed in reference to its occurrence after cold working, hot forging, annealing, tempering, and hardening. Data are also given on the effect of the annealing temperature on the properties of titanium and the effect of alloying additions on the recrystallization temperature.

Babenko, A. A. Deformation and Recrystallization Textures of Titanium and Titanium Alloys.

The article deals with textures assumed by titanium and titanium alloys after different forming operations.

Shchelokov, N. N., and G. V. Mazarov. Welding and Soldering of Titanium and Titanium Alloys.

Welding characteristics of titanium are discussed. Data are given on welding and soldering methods.

Mal'chenko, B. N., and A. I. Ponomarev. Methods for Chemical Analysis of Titanium and Titanium Products.

Data are furnished on qualitative, volumetric, polarographic, and colorimetric methods of analysis. Phosphorus analysis is also discussed. Romanov, K. P. Theory and Practice of Machining Titanium Alloys. The following topics are discussed: determination of machinability; causes of poor machinability; effect of coolant, lathe, and other factors on machinability; methods for machining titanium alloys. Turning, end-milling, drilling, and

MELENT'YEV, B.N.; PONOMAREV, A.I.

Methods of analyzing titanium and titanium products. Itogi nauki:
Tekh. nauki no.2:285-310 '59. (MIRA 12:9)
(Titanium--Analysis)

5(2),5(3)
AUTHORS:

Ponomarev, A. I., Sheskol'skaya, A. Ya. SOV/75-14-1-15/32

TITLE:

Determination of Niobium in the Presence of Tungsten by the
Aid of Cupferron (Opradelcheniye niobiya v prisutstvii
vol'framia pri pomoschi kupferona)

PERIODICAL:

Zhurnal analiticheskoy khimii, 1959, Vol 14, Nr 1, pp 67-70
(USSR)

ABSTRACT:

A method is devised in the present paper, permitting the determination of niobium in alloys, steels and other objects containing tungsten, without prior separation of the two elements. 3 niobium standard solutions were employed for the elaboration of this method: with tartaric acid, with oxalic acid and with ammonium oxalate. The determination takes place by precipitation of niobium with a 3% aqueous solution of cupferron from hydrochloric solution, containing one of the three mentioned complex-forming compounds. The precipitate is filtered off, annealed and then decomposed with potassium pyrosulfate. After cooling, a solution of oxalic acid, ammonium oxalate or tartaric acid is added, wherein the melt is soluble on heating. The solution obtained is acidified with hydrochloric acid and the precipitation of niobium with cupferron is repeated. The

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Determination of Niobium in the Presence of
Tungsten by the Aid of Cupferron

SOV/75-14-1-13/32

precipitate obtained is annealed ($\sim 1000^\circ$) and weighed out as Nb_2O_5 . The precipitation with cupferron takes place at room temperature. Filtering and washing of the precipitate is rapid and reliable. The results obtained from the determination show that for determining niobium in the presence of tungsten all three mentioned complex formers are suitable to the same degree for the masking of tungsten. By the aid of the radioactive isotope W^{185} the precipitates of Nb_2O_5 were investigated as to their tungsten content. The amount of tungsten co-precipitated was found to be dependent on that of niobium. On precipitating 10 mg Nb in the presence of 100 mg W more pure Nb_2O_5 containing no tungsten is obtained. Investigation of the precipitates that are obtained from the alloys W - Si - Nb showed co-precipitation of tungsten to occur only with niobium contents $> 30\%$. The method devised is both rapid and accurate and permits the determination of niobium in the presence of

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Determination of Niobium in the Presence of
Tungsten by the Aid of Cupferron

SCV/75-14-1-13/32

large quantities of tungsten. Very detailed working instructions for the niobium determination based on this method are given with respect to W - Si - Nb alloys and tungsten-containing steels. There are 3 tables and 5 references, 4 of which are Soviet.

ASSOCIATION: Institut metallichii im. A. A. Baykova AN SSSR, Moscow
(Institute of Metallurgy imeni A. A. Baykov of the ~~AS~~ USSR,
~~Moscow~~)

SUBMITTED: March 6, 1958

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5(2)

SOV/75-14-2-16/27

AUTHORS: Ponomarev, A. I., Astanina, A. A.

TITLE: Determination of Small Amounts of Nitrogen in Metals and Alloys
(Opredeleniye malykh kolichestv azota v metallakh i splavakh)PERIODICAL: Zhurnal analiticheskoy khimii, 1959, Vol 14, Nr 2, pp 234-238
(USSR)

ABSTRACT: Nitrogen occurs in metals and alloys mainly in the form of nitrides. The determination of nitride-nitrogen is usually carried out by solving the weighed portion and by transforming nitrogen into ammonia. Ammonia is separated by distillation in a special apparatus and then determined by titration or photometrically. The authors of the present paper used distillation with steam for the determination. The distillation apparatus applied is represented and described in this paper. Special attention was paid to the dephlegmator. Practical experience showed that a dephlegmator in the form of a narrow tube as well as a short condenser may lead to errors. For this reason the authors used a dephlegmator in the form of a rather wide tube (diameter of about 10 mm) with an enlargement in the middle. At moderate and uniform development of steam part of the steam condenses on the tube walls and flows back into the flask: in this case not the entire cross section of the tube is filled with liquid. Since the alkali content of the

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SOV/75-14-2-16/27

Determination of Small Amounts of Nitrogen in Metals and Alloys

glass inhibits the determination the dephlegmator, condenser, and collector were made of quartz. For the determination of ammonia in the condensate the authors devised a sensitive photometric method. It is based on the measurement of the pH value of the distillate by means of a universal indicator (Ref 5). For this purpose a small board with a scale of imitating light filters (VIMS) is used. By means of these filters the color of the sample of the distillate to which the indicator was added is compared. The method elaborated by the authors makes it possible to determine ten thousandths of per cents of nitrogen in the initial material. If dilute solutions or smaller quantities of weighed portions are used, the method permits the determination of tenths of per cents of nitrogen. The sensitivity of the method is 0.2 γ N in 1 ml. The photometric determination after the distillation of ammonia does not take more than 2 minutes. The accuracy of the determination is determined by the correction which must be made in the blank test. The results of the determination of nitrogen according to this new method in three standard steel samples are given in a table. The entire process of analysis is described in detail in this paper, and many a practical advice

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SOV/75-14-2-16/27

Determination of Small Amounts of Nitrogen in Metals and Alloys

is given. The production of the reagents which must not contain ammonia (bidistilled water for distillation, soda lye, hydrochloric acid or sulfuric acid for the decomposition of the sample, dissolution of the universal indicator) is precisely described. There are 3 figures, 1 table, and 5 Soviet references.

ASSOCIATION: Institut metallurgii im. A. A. Baykova AN SSSR, Moskva
(Institute of Metallurgy imeni A. A. Baykov of the AS USSR,
Moscow)

SUBMITTED: March 8, 1958

Card 3/3

L 22814-66 ENT(a)/EWP(c)/T/EWP(v)/EWP(k)/EWP(h)/EWP(l)
ACC NR: AP6007594 SOURCE CODE: UR/0119/66/000/002/0012/0014

AUTHOR: Basov, V. I. (Engineer); Butayev, G. M. (Candidate of technical sciences);
Melik-Agkarov, A. O. (Engineer); Ponomarev, A. I. (Engineer); Romashkan, V. S.
(Engineer); Tupas, V. I. (Engineer)

5/
B

ORG: none

TITLE: Coded telemetry system for concentrated plants

SOURCE: Priborostroyeniye, no. 2, 1966, 12-14

TOPIC TAGS: telemetry system, telemetry technique

ABSTRACT: Fifteen quantities are telemeasured and seven two-position-indication signals are transmitted; also, deviation of any quantity from its normal measuring span is signalled. In addition to indicating instruments and signal lamps, the dispatcher station has a digital printer and a specialized computer. Three frequency channels transmit 1, 0, and change-quantity signals. A number protection in the interrogation cycle of each parameter is provided, as well as a protection against missing or breaking up pulses. The system is designed with semiconductor devices only. These characteristics are claimed: frequencies, 4400, 4600, and 4800 cps; transmission time of one frequency signal, 10 millisec; interrogation time of one parameter, 130 millisec; basic error, $\pm 0.6\%$ or less; line attenuation, 3 nep; tolerable supply-voltage variation, +10 -15%. The system has been tentatively put in operation at the Dzerzhinskiy Metallurgical Plant, Dneprodzerzhinsk.

Orig. art. has: 4 figures and 1 table.

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 005

UDC: 621.398:654.931

Cord 1/1

L 8608-66 EWT(d)/EWP(1) IJP(c) BB/GG
ACC NR: AR5014366

SOURCE CODE: UR/0271/65/000/005/B061/B061

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika.
Svodnyy tom, Abs. 5B441

AUTHOR: Shchedrov, N. I. ^{yy} Ponomarev, A. I. ^{yy}

37
B

TITLE: Angle-to-code converter ^{yy} /6C,44

CITED SOURCE: Sb. Ustroystva i elementy prom. telemekhan. Kiyev, 1964,
109-114

TOPIC TAGS: angle to code converter, analog digital converter

TRANSLATION: The shortcomings of existing angle-to-code converter types are noted; the new converter (shaft digitalizer) has no such shortcomings. The new 6-digit sensor is housed in a diamagnetic cylinder. At this cylinder bottom and on its top, three heads are staggered at an angle of 120° to each other. The rotor

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UDC: 681.142.621

Card 2/2 *pw*

AM5016875

BOOK EXPLOITATION

669:543/543+543.42

60

25

B+/

Ponomarev, A. I., ed.

Chemical and spectrum analysis in metallurgy; a practical handbook
(Khimicheskiy i spektral'nyy analiz v metallurgii; prakticheskoye
rukovodstvo) Moscow, Izd-vo "Nauka", 1965. 382 p. illus., tables,
index. (At head of title Akademiya nauk SSSR. Gosudarstvennyy
komitet po chernoy i tsvetnoy metallurgii pri Gosplane SSSR.
Institut metallurgii im. A. A. Baykova) Errata slip inserted.
3000 copies printed.

TOPIC TAGS: analysis, chemical analysis, physicochemical analysis,
spectral analysis, slag analysis, steel analysis, iron analysis,

~~DO NOT REPRODUCE~~ ~~DO NOT REPRODUCE~~ ~~DO NOT REPRODUCE~~

PURPOSE AND COVERAGE: This book is intended for specialists and workers at scientific-research and plant laboratories. The book describes chemical, physicochemical and spectral methods of analysing slags, steels, irons, various alloys, and some pure

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metals. The determination of rare and rare-earth elements is outlined. Part I of the book deals with the analysis of slags and the determination of basic elements and usual impurities, and describes methods of determining rare-earth elements. Part II deals with the analysis of cast irons and steels and describes, the determination of usual components and tungsten and molybdenum.

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AM5016875

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Part II. Analysis of Cast Irons and Steels -- 116

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Metals and Alloys -- 259

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10. Rapid determination of aluminum in niobium-aluminum alloy -- 289
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10. Bichromatic method of determining molybdenum in niobium-base alloys 292 21 9
11. Determination of niobium and gallium in niobium-gallium alloys -- 293 21
13. Polarographic determination of titanium in titanium-niobium alloys (with titanium content up to 65%) -- 295 21 41
- Ch. VIII. Determination of germanium 314 21
1. Weighing method of determining germanium in germanium-iron alloys -- 314 21
2. Determination [of germanium] in silicon -- 315 21 41
3. Colorimetric determination [of germanium] in indium-antimony alloys -- 315 21 41

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- Ch. X. Determination of Indium -- 320
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 2. Determination in titanium-indium alloys -- 322
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Ch. XI. Polarographic Determination of Impurities in Yttrium
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Part IV. Spectrum Analysis of Steels, Certain Alloys, and Pure
Materials -- 333

SUB CODE: MM SUBMITTED: 19Jan65 NO REP Sov: 133

OTHER: 015 DATE ACT: 03Jun65

Card: 51500P

PONOMAREV, A.I.; KLEBANSKIY, A.L.

Synthesis and properties of bifunctional organosilicon acids
and their polymers. Vysokom. soed. 7 no.2:350-353 F '65.

(MIRA 18:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo
kauchuka.

ASTANINA, A.A.; NAGIBIN, V.S.; KUNENKOVA Ye.N.; BYKOVSKAYA, Yu.I.; VESELYY, L.I.; GOLUBEVA, I.A.; GERTSEVA, N.S.; SLAVATINSKIY, A.S.; SHTEYNBERG, A.N.; NIKITINA, M.V.; Prinimala uchastiye LAPCHINSKAYA, L.L.; PONOMAREV, A.I., otv. red.; DRAGUNOV, E.S., red.

[Chemical and spectrum analysis in metallurgy; a practical guide] Khimicheskii i spektral'nyy analiz v metallurgii; prakticheskoe rukovodstvo. Moskva, Nauka, 1965. 382 p.

(MIRA 18:4)

1. Moscow. Institut metallurgii. 2. Analiticheskaya laboratoriya Instituta metallurgii im. A.A.Baykova (for all except Ponomarev, Dragunov).

PONOMAREV, A.I.; LAPCHINSKAYA, L.L.

"Technical analysis in metallurgy" by P.IA.Iakovlev, E.F.Iakovleva.
Reviewed by A.I.Ponomarev, L.L.Lapchinskaya. Zav.lab. 29 no.11;
1/02 '63. (MIRA 16:12)

ACCESSION NR: AP4018058

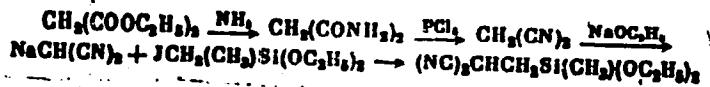
S/0079/64/034/002/0702/0702

AUTHOR: Dmokhovskaya, Ye. B.; Klebanskiy, A. L.; Ponomarev, A. I.

TITLE: Synthesis and some properties of silanes with dinitriloalkyl radicals

SOURCE: Zhurnal obshchey khimii, v. 34, no. 2, 1964, 702

TOPIC TAGS: silane, dinitriloalkyl radical, organosilicon compound, methyl-Beta, Beta-dicyanoethyldiethoxysilane, dicyanopropyldiethoxy-silane, chemical synthesis

ABSTRACT: In order to explain the effect of the nitriloalkyl radical combined with a silicon atom on the properties of an organosilicon compound, methyl- α , β -dicyanoethyldiethoxysilane was synthesized:

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ACCESSION NR: AP4018058

Methyl- β , β -dicyanoethyldiethoxysilane is an extremely unstable spontaneously resinified compound. When stored in darkness for a month in a medium of inert gas at room temperature, the product was converted from a clear liquid, boiling point 145°C (7MM), into a viscous black resin. The resinification of this compound is explained by the protonization of hydrogen, combined with the β -carbon atom. The substitution of the free hydrogen atom in the electron donor group should lead to the stabilization of such a compound. As a result of synthesis from the diethyl ester of methylmalonic acid, methyl- β , β -dicyanopropylidethoxysilane was obtained in which the initial properties were unchanged over a prolonged period. At present, the conditions of hydrolysis of methyl- β , β -dicyanopropylidethoxysilane and the composition of the hydrolyzate are being studied. Hydrolysis in neutral and slightly alkaline mediums with an excess of water provides a vitreous product with a softening point of 125°C. Hydrolysis in acid medium leads to a breakdown of the nitrile group. Orig. art. has: no formulas, figures, or tables.

Sub: 2 Aug 63

Card 2/3

DMOKHOVSKAYA, Ye.B.; KLEBANSKIY, A.L.; PONOMAREV, A.I.

Synthesis of some properties of silanes with dinitrile alkyl radicals.
Zhur.ob.khim. 34 no.2:702 F '64.
(MIRA 17:3)

PONOMAREV, A. I.; KLEBANSKIY, A. L.

Bromination of octamethylcyclotetrasiloxane. Part 2. Zhur. ob.
khim. 32 no. 12:4022-4025 D '62. (MIRA 16:1)

(Tetrasiloxane) (Bromination)

PONOMAREV, A. I.; KLEBANSKIY, A. L.; LARIONOVA, Yu. A.;
BOGDANOVA, V. V.

Preparation of p-cyanophenylmethyldiethoxysilane. Zhur. ob.
khim. 33 no.1:316 '63. (MIRA 16:1)

(Silane)

ASTANINA, A.A.; PONOMAREV, A.I.

Photometric determination of titanium with chromotropic acid
in metallic chromium. Trudy Inst.met. no.10:227-230 '62.

(MIRA 15:8)

(Chromium--Analysis)

(Titanium--Analysis)

PONOMAREV, A.I.; ASTANINA, A.A.

Determination of small quantities of sulfur in steel, cast iron,
iron ores, and other materials. Trudy Inst.met. no.10:230-238
'62. (MIRA 15:8)
(Metals--Sulfur content)

PONOMAREV, A.I.; SHTEINBERG, A.N.; NAGIBIN, V.S.; YAKOVLEV, P.Ya.

"Methods of chemical, physicochemical, and spectral analysis of raw materials, metals, and slags at metallurgical plants" by V.D.Konkin, G.A.Klemeshov, O.I.Nikitina. Reviewed by A. O. Ponomarev and others. Zav.lab. 28 no.5:638-639 '62.

(MIRA 15:6)
(Metallurgical analysis) (Konkin, V.D.) (Klemeshov, G.A.)
(Nikitina, O.I.)

S/661/61/000/006/024/081
D205/D302

AUTHORS: Ponomarev, A. I. and Klebanskiy, A. L.

TITLE: Synthesis of silico-organic compounds with polar substituents in the organic radical and investigation of their stability

SOURCE: Khimiya i prakticheskoye primeneniye kremneorganicheskikh soyedineniy; trudy konferentsii, no. 6, Doklady, diskussii resheniye. II Vses. konfer. po khimii i prakt. prim. kremneorg. soyed., Len. 1958. Leningrad, Izd-vo AN SSSR, 1961, 116-119

TEXT: In addition to the published material it is stated that cyanomethyl heptamethyl cyclotetrasiloxane was obtained in 77% yield by the action of lithium methyl heptamethyl cyclotetrasiloxane on the solution of cyanogen in ether. Investigations have shown that dimethyl siloxane derivatives containing polar substituents in the side chain at the α -carbon atom are chemically and thermally unstable. When a nitrile or a carboxylic group is present in the

Card 1/2

S/137/62/000/003/188/191
A154/A101

AUTHORS: Ponomarev, A. I.; Bykovskaya, Yu. I.

TITLE: A new method for determining small amounts of carbon

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 12, abstract 3 K 65
("Tr. In-ta metallurgii, AN SSSR", 1961, vyp. 8, 237 - 241)

TEXT: A method was developed for determining small amounts of C, completed by colorimetry. Use was made of the possibility of determining C from the amount of U reacting with BaCO_3 with formation of a complex salt difficultly soluble in water. To carry out the determination a device was designed in which BaCO_3 is obtained by absorption of CO_2 , formed in ignition of C in the sample, by a $\text{Ba}(\text{OH})_2$ solution in a cylindrical funnel with a porous filtering plate. 5 ml of a UO_2Cl_2 solution is added to the BaCO_3 . The resulting precipitate of barium-uranium complex salt is dissolved in HCl. The solution is transferred to a 50-ml retort and brought up to the mark. Colorimetry of U is carried out by arsenazo. A specific volume of the examined solution is put into a 10-ml calibrated cylinder, a 25% solution of urotropine is added until Congo paper turns red, a 0.005%

Card 1/2

PONOMAREV, A.I.; BYKOVSKAYA, Yu.I.

New method of determining small amounts of carbon. Trudy
Inst. met. no.8:237-241 '61. (MIRA 14:10)
(Steel--Analysis) (Carbon--Analysis)

PONOMAREV, A.I.; BYKOVSKAYA, Yu.I.

New type of absorption vessel for the volumetric barite method
of carbon determination. Trudy Inst. met. no.8:242-~~244~~ '61.

(Microchemistry) (Carbon) (MIRA 14:10)

S/137/62/000/001/234/237
A154/A101

AUTHORS: Melent'yev, B. N., Ponomarev, A. I.

TITLE: The present state of the analytical chemistry of titanium.

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 1, 1962, 12, abstract 1K75
(V. sb. "Metody opredeleniya i analiza redk. elementov". Moscow,
AN SSSR, 1961, 238-302)

TEXT: This review describes the following methods for the determination and separation of Ti from other metals, determination in natural and industrial objects, determination of admixtures in metallic Ti and gases in the latter, and analysis of Ti-based alloys. Determination of TiO and Ti_2O_3 when both of them are present. Photometric determination of Ti with chromotropic acid. Determination of Al in Fe-Ti. Determination of Ti in Fe-Ti, a Ti-Ni master alloy, and 3U-437 (EI-437) alloy. Polarographic determination of Ti and by the differential spectrophotometry method. Spectral determination of admixtures of Mg, Al, Cr, Mn, Fe, and Cu in high-purity metallic Ti and TiO_2 by the evaporation method, and spectral determination of admixtures in Ti in a d-c arc or in a condenser

Card 1/2

The present state of ...

S/137/62/000/001/234/237
A154/A101

spark. Colorimetric methods of determination of Cu, Zn, Al, Mn, Fe, Co, Ni, V, P, Sb, Mo, W, and Cl in metallic Ti. Catalytic method for the determination of S in Ti. Determination of C and gases in Ti. There are 25 references.

B. Melent'yev

[Abstracter's note: Complete translation]

Card 2/2

KOROSTELEV, Pavel Pavlovich; PONOMAREV, A.I., kand. geol.-mineral.
nauk, otd. red.; LOSKUTOVA, I.P., red.izd-va; MAKUNI, Ye.V.,
tekhn. red.

[Preparation of solutions for chemoanalytical laboratory work]
Prigotovlenie rastvorov dlia khimiko-analiticheskikh rabot. Mo-
skva, Izd-vo Akad. nauk SSSR, 1962. 310 p. (MIRA 15:2)
(Chemistry, Analytical)

PONOMAREV, A. I.

PHASE I BOOK EXPLOITATION

18
SOV/5777

Vinogradov, A. P., Academician, and D. I. Ryabchikov, Doctor of Chemical Sciences, Professor, Resp. Eds.

Metody opredeleniya i analiza redkikh elementov (Methods for the Detection and Analysis of Rare Elements) Moscow, Izd-vo AN SSSR, 1961. 667 p. Errata slip inserted. 6000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut geokhimii i analiticheskoy khimii im. V. I. Vernadskogo.

Ed. of Publishing House: M. P. Volynets; Tech. Ed.: O. Gus'kova.

PURPOSE: This book is intended for analytical chemists and for students of analytical chemistry.

COVERAGE: The handbook was published in accordance with a decision of the Vsesoyuznoye soveshchaniye po analizu redkikh elementov (All-Union Conference on the Analysis of Rare Elements) called

Card 1/5

Methods for the Detection (Cont.)

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together by the Gosudarstvennyy nauchno-tehnicheskiy komitet Soveta Ministrov SSSR (State Scientific and Technical Committee of the Council of Ministers of the USSR) and the Academy of Sciences USSR in December, 1959. The material is arranged in accordance with the group position of elements in the periodic system, and each section is prefaced by an article discussing the analytical methods most used in the Soviet and non-Soviet countries. Each section deals with the physical, physicochemical, and chemical methods for the analysis of raw materials, semi-products, and pure metals, and is accompanied by an extensive bibliography listing works published in the field in recent years. The following are mentioned for their help in preparing the book for publication: I. P. Alimarin, G. N. Bilimovich, A. I. Busev, E. Ye. Vaynshteyn, M. P. Volynets, V. G. Goryushina, A. M. Dymov, S. V. Yelinson, O. Ye. Zvyagintsev, G. M. Kolosova, Ye. K. Korchemnaya, V. I. Lebedev, G. A. Malofeyeva, B. N. Melent'yev, V. A. Nazarenko, I. I. Nazarenko, T. V. Petrova, N. S. Poluektov, A. I. Ponomarev, V. A. Ryabukhin, N. S. Stroganova, and Yu. A. Chernikhov.

Card 2/5

Methods for the Detection (Cont.)

SOV/5777

Analytical Chemistry of the Rare Earth Elements, Scandium and
Yttrium

128

Busev, A. I., and V. G. Tiptsova. Present State of the Analytical
Chemistry of Thallium

182

Busev, A. I., and L. M. Skrebkova. Present State of the Analytical
Chemistry of Gallium

201

Melent'yev, B. N., and A. I. Ponomarev. Present State of the An-
alytical Chemistry of Titanium

238

Yelinson, S. V. Present State of the Analytical Chemistry of
Zirconium and Hafnium

303

Ryabchikov, D. I., and D. I. Korchemnaya. Present State of the
Analytical Chemistry of Thorium

374

Card 4/5

PONOMAREV, A. I.; SHESKOL'SKAYA, A. Ya.

Determination of niobium in cast iron. Trudy Inst. met. no.4:240-
242 '60.

(MIRA 14:5)

(Cast iron--Analysis)
(Nbium--Analysis)

ALIMARIN, I.P.; BILIMOVICH, G.N.; BUSEV, A.I.; VAYNSHTEYN, E.Ye.; VOLYNETS, M.P.; GORYUSHINA, V.G.; DYMOV, A.M.; YELINSON, S.V.; ZVIAGINTSEV, O.Ye.; KOLOSOVA, G.M.; KORCHEMNAYA, Ye.K.; LEBEDEV, V.I.; MALOFETEVA, G.A.; MELENT'YEV, B.N.; NAZARENKO, V.A.; NAZARENKO, I.I.; PETROVA, T.V.; POLUEKTOV, N.S.; PONOMAREV, A.I.; RYABUKHIN, V.A.; STROGANOVA, N.S.; CHERNIKHOV, Yu.A.; VINOGRADOV, A.P., akademik, otv. red.; RYABCHIKOV, D.I., doktor khim. nauk, prof., otv. red.; GUS'KOVA, O., tekhn. red.

[Methods for the determination and analysis of rare elements] Metody opredeleniya i analiza redkikh elementov. Moskva, 1961. 667 p.

(MIRA 14:7)

1. Akademiya nauk SSSR. Institut geokhimii i analiticheskoy khimii.
(Metals, Rare and minor)

PONOMAREV, A.I.

Introducing new measuring equipment into industrial production.
Izm.tekh. no.6:4-5 Je '60. (MIRA 14:1)
(Measuring instruments)

S/509/60/000/004/022/024
E111/E152

AUTHORS: Ponomarev, A.I., and Sheskol'skaya, A.Ya.
TITLE: Determination of Niobium in Cast Irons
PERIODICAL: Akademiya nauk SSSR. Institut metallurgii.
Trudy, No.4, 1960. Metallurgiya, metallovedeniye,
fiziko-khimicheskiye metody issledovaniya, pp.240-242
TEXT: The object of this work was to find a method of determining niobium in cast iron in the presence of iron and titanium, without their preliminary separation. Ascorbic acid C₆H₈O₆ was used to form a complex with titanium and for reducing iron to the bivalent form in which it stays in solution. After preliminary experiments the following procedure was developed. 1-1.5 g of the sample is treated with 5 ml of 1.40 s.g. nitric acid. After evaporation almost to dryness on a sand bath, the solution is completed by adding 30 ml of 1:2 hydrochloric acid and boiling. The volume of the solution is maintained by adding water. Ignoring any black light residue the solution is diluted to 180-190 ml, 1-2 g of ammonium chloride and 0.1-0.2 g of ascorbic acid are added and the temperature is raised to 70-80 °C. Card 1/3 ✓

S/509/60/000/004/022/024
E111/E152

Determination of Niobium in Cast Irons

10 ml of freshly prepared 1% aqueous tannide solution are slowly added with stirring, the heating being continued for 2-3 hours. Macerated paper is added and after cooling the precipitate is filtered and washed 6-8 times with cold 4% hydrochloric acid. The precipitate and paper are heated in a platinum crucible until all graphite has burned off. A few drops of water, 10-20 drops of 1:1 sulphuric acid and 2.3 ml of hydrofluoric acid are added and the crucible is gradually heated on a sand bath until SO_3 fumes have been evolved for 5 min. 1-2 ml of water are added to the cooled crucible and evaporation is carried out until only 2-3 drops of sulphuric acid remain. After cooling, 1-2 ml of water and 5 ml of hydrochloric acid (s.g. 1.19) are added and the crucible is heated until all salts have dissolved. The solution is transferred to a beaker, diluted to 80-90 ml and the niobium is precipitated as before after addition of 0.10 g of ascorbic acid. The filtered and washed precipitate and filter paper are heated to 1000 °C for 5-7 minutes in a platinum crucible which is then cooled in a desiccator and weighed. The residue is fused

Card 2/3

S/509/60/000/004/022/024
E111/E152

Determination of Niobium in Cast Irons

with potassium pyrosulphate (0.5-1.0 g) and the melt is dissolved in 20 ml of 5% sulphuric acid with 1-2 drops of hydrogen peroxide. If the solution is colourless titanium is absent; if it is pale yellow it is diluted to 25 ml and its coloration compared with that of a standard titanium solution, the equivalent weight of titanium dioxide being subtracted from the weight of the niobium pentoxide precipitate.

There are 2 tables and 5 references: 3 Soviet, 1 English and 1 German.

Card 3/3

KROSTEL'EV, Pavel Pavlovich; PONOMAREN, A.I., kand.geol.-miner.
nauk, otv. red.; SUSEV, A.I., red.

[Preparation of solutions for laboratory work in
analytical chemistry] Prigotovlenie rastvorov dlia khimiko-
analiticheskikh rabot. Izd.2., perer. i dop. Moskva,
Nauka, 1964. 398 p.
(MIRA 18:1)

PONOMAREV, Ardalion Ivanovich; OSTROUMOV, E.A., doktor khim.nauk,
ctv.red.; VOLYMETS, M.P., red.izd-va; SUSHKOVA, L.A.,
tekhn.red.; LAUT, V.G., tekhn.red.

[Methods for a chemical analysis of siliceous and carbonaceous
rocks] Metody khimicheskogo analiza silikatnykh i karbonatnykh
gornykh porod. Moskva, Izd-vo Akad.nauk SSSR, 1961. 413 p.

(MIRA 14:4)

(Rocks, Carbonate)

(Rocks, Siliceous)

L-35479-63 EPA(s)-2/EWT(m)EPF(c)/EPR/EWP(j)/T PC-4/Pr-4/Ps-4/Pt-10 WH/RM
ACCESSION NR: AP5005605 S/0190/65/007/002/0350/0353

AUTHORS: Ponomarev, A. I.; Klebanovskiy, A. L.

TITLE: Synthesis and properties of bifunctional organosilicon acids and their polymers

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 2, 1965, 350-353

TOPIC TAGS: organosilicon, polymer, thermal stability

ABSTRACT: The authors synthesized carboxymethylheptamethylcyclotetrasiloxane¹ from magnesium-bromine methylheptamethylcyclotetrasiloxane in an autoclave first dried in nitrogen and cooled by ¹³

Cord 1/2

L 35479-65

ACCESSION NR: AP5005605

then frozen in a mixture of ice and salt. Crystals precipitated, were filtered off, and then recrystallized twice from pentane. A similar procedure was carried out to obtain the same compound from lithium methylheptamethylcyclotetrasiloxane. The compound proved to have poor thermal stability.

decomposed at room temperature. Rubberlike β -carboxyethylmethyisiloxane copolymers with varying amounts of β -carboxyethylsiloxane units in the copolymer, however, proved to have good thermal stability and to be unaffected by H_2SO_4 . Orig. art.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka (All-Union Scientific Research Institute of Synthetic Rubber)

SUBMITTED: 04May64

ENCL: 00

SUB CODE: MT, OC

NO REF SOV: 003

OTHER: 004

Card 2/2

PONOMAREV, Aleksandr Filippovich; GEDYK, Pavel Konstantinovich;
DUGINA, N.A., tekhn. red.

[Lubrication of equipment] Smazka oborudovaniia. Izd.2., dop.
1 perer. Moskva, Mashgiz, 1962. 316 p. (MIRA 16:4)
(Lubrication and lubricants)

PONOMAREV, A.K.

Experiment in the casting of steel gearwheels. Lit. proizv.
no. 8:45 Ag '60. (MIRA 14:2)
(Gearing) (Steel castings)

PONOMAREV, A.K.

Tolerances for the flame cutting of riser-heads on steel castings.
Lit.proizv. no.2:41 F '62. (MIRA 15:2)
(Risers (Foundry)) (Gas welding and cutting)

PONOMAREV, A.K.

Casting of steel molding flasks. Rationalizatsiia 13 no.1; -
27 '63.

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CIA-RDP86-00513R001342120001-7

PONOMAREV, A.K.

Casting of steel flasks. Lit. proizv. no.6:37 Je '62. (MIRA 15:6)
(Steel castings)

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PONOMAREV, A. K.

Founding

Effective fixing of core boxes. Lit. proizv. No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

PONOMAREV, A.K., inzh.

Mold wash to improve the surface quality of steel castings.
Lit. proizv. no.11:39 N '65. (MIRA 18:12)

PONOMAREV, A-L

Origin and geochemistry of Obi-Sorbaia deposits.
A. I. Bulov and A. I. Ponomarev. Mineral. Sair's 9,
No. 8, p-16 (1934); cf. Ibid. 9, No. 7 (1934).—A theo-
retical discussion of the genesis and chemistry of some 35
mineral deposits in the region, which have no com. im-
portance.

Chas. Blanc

ABD-514 METALLURGICAL LITERATURE CLASSIFICATION

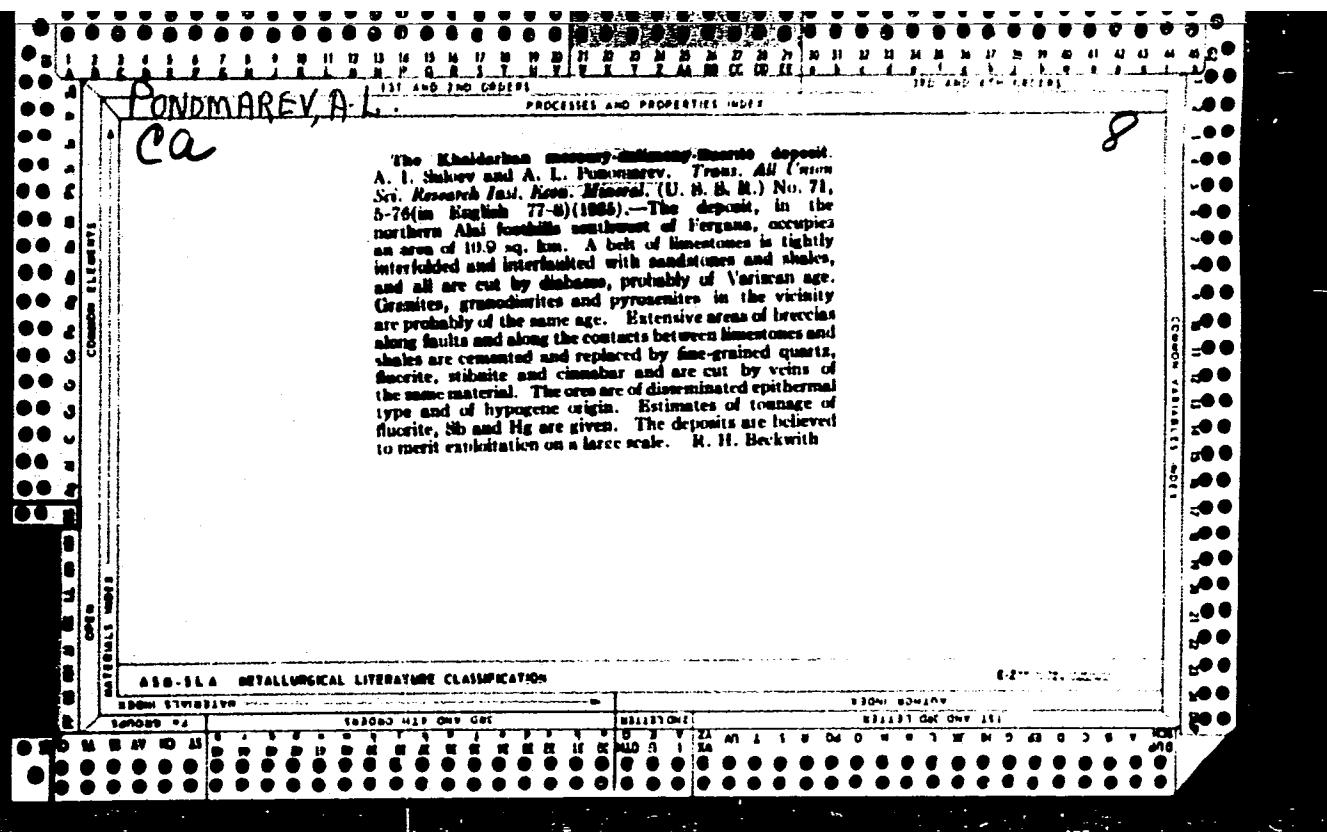
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PONOMAREV, A. L.

Kalabukhov, N. I., Afonskaya, R. I. and Ponomarev, A. L. - "Certain explanations pertaining to the temperature cycle in southern mammals in captivity," (The problem of acclimatization), Trudy Mosk. zooparka Vol. IV, 1949, p. 3-57, - Biblio: 22 items

SO: U-^b355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

PONOMAREV, A. L.

Ponomarev, A. L. - "Diurnal cycle of the activities of the sable, forest and stone marten and polecat," Trudy Mosk. Zooparka, Vol. IV, 1949, p. 66-67, Bibliog: 10 items

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

PONOMAREV, A.M.

Diagnostic significance of splenomanometry. Trudy LSGMI 74;
55-60 '62.
(MIRA 17:10)

KARVATSKIY, B.L., professor, doktor tekhnicheskikh nauk; BRAYLOVSKIY, N.G.,
inzhener, redaktor; PONOMAREV, A.N., inzhener, redaktor; YUDZON,
D.M., tekhnicheskiy redaktor

[Automatic braking systems] Avtomaticheskie tormoza. 2 izd. Moskva,
Gos. transp. zhel-dor. izd-vo, 1953. 241 p. (MLRA 7:10)
(Railroads--Brakes)

PONOMAREV, A. N. Dr. Tech. Sci.

Dissertation: "Investigation and Design of the Centrifugal Regulators of Variable Pitch Propellers." Moscow Order of the Labor Red Banner Higher Technical School, imeni N. E. Bauman, 19 May 47.

SO: Vechernyaya Moskva, May, 1947 (Project #17836)

PONOMAREV, A.N., general-leytenant inzhenerno-tekhnicheskoy sektsii.

Supersonic airplanes. Vest.Vozd.Fl. 39 no.9:86-90 S '56.

(Aerodynamics, Supersonic) (Jet planes)

(MIRA 10:1)

1(0)

PHASE I BOOK EXPLOITATION

sov/2605

Ponomarev, Aleksandr Nikolayevich

Sovremennaya reaktivnaya aviatsiya (Modern Jet Aircraft) Moscow, Voyen. izd-vo M-va obor. SSSR, 1959. 258 p. (Series: Nauchno-populyarnaya biblioteka)
Number of copies printed not given.

Ed.: Ya. M. Kader; Consultants of the Publishing House: S. P. Sinyakov, Lieutenant General, USSR Air Force, I. T. Denisov, Colonel-Engineer, Docent, and Ye. V. Pavlov, Lt. Colonel, Engineer, Candidate of Technical Sciences;
Tech. Ed.: R. L. Solomonik.

PURPOSE: This book is intended for a wide audience including officers of the Soviet Army, Air Force, and Navy, Soviet youth, and members of DOSAAF (All-Union Voluntary Society for the Promotion of the Army, Air Force, and Navy).

COVERAGE: The book discusses the theoretical foundations of jet engineering and the operating principles and the construction of jet aircraft, jet engines, armament, and equipment installed on modern jet aircraft. The book uses

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Modern Jet Aircraft

SOV/2605

data from non-Soviet publications for aircraft, engines, armament, radar,
and pilotless jet equipment produced outside the USSR.

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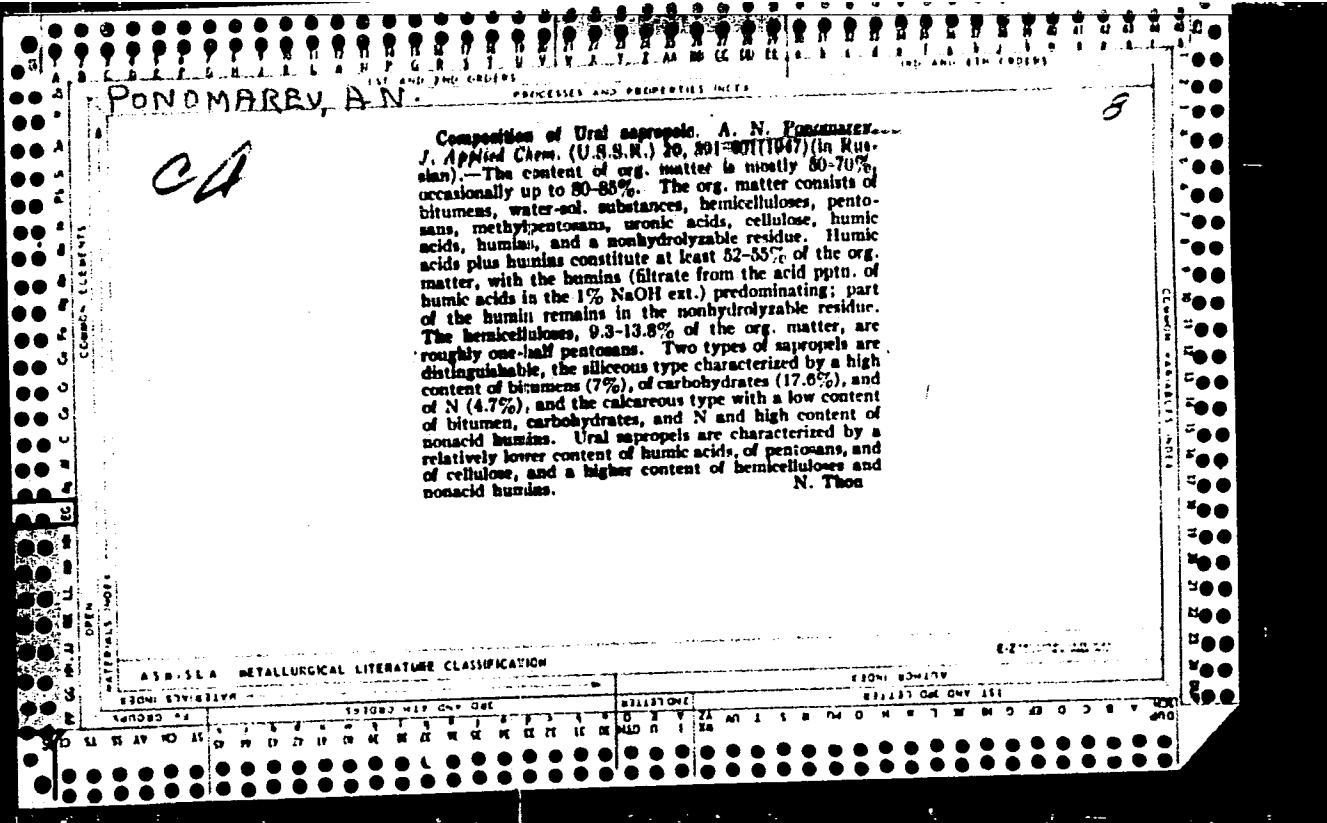
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Card 4/5



PONOMAREV, A. N.

Ponomarev, A. N. "The forest-steppe complex of the northern borderland of the Kungur forest-steppe," Izvestiya Yestestv.-nauch., in-ta pri Molotovskom gos. un-te im. Gor'kogo, Vol XII, Issue 6, 1948, p. 225-33 - Bibliog: 24 items SO: U-3850, 16 June 53, (Letopis 'Zhurnal 'nykh Statey, No. 5, 1949).

PONOMAREV, A. N.

28987 O Lesostepnom Floristicheskom Komplekse Severnogo Chasti
Srednego Urala. Botan. Zhurnal, 1949, No. 4, S 381-88.
Bibliogr: S 388

SO: Letopis' Zhurnal'nykh Statey, Vol. 39, Moskva, 1949

PONOMAREV, A.N.; BUKINA, A.I.; SUKACHEV, V.N., akademik.

Daily rhythm of flowering and pollination of grasses. Dokl.AN SSSR 91 no.5:
1217-1220 Ag '53. (MLRA 6:8)

1. Akademiya nauk SSSR (for Sukachev). 2. Molotovskiy gosudarstvennyy universitet im. A.M.Gor'kogo (for Ponomarev and Bukina).
(Grasses) (Fertilization of plants)

PONOMAREV, A.N.; SUKACHEV, V.N., akademik.

Effect of drought on alfalfa pollination. Dokl.AN SSSR 91 no.6:1393-1396
Ag '53. (MLRA 6:8)

1. Akademiya nauk SSSR (for Sukachev). 2. Molotovskiy gosudarstvennyy uni-
versitet im. A.M.Gor'kogo (for Ponomarev). (Alfalfa)

PONOMAREV, A.N.

Ecology of flowering and pollination of grasses and alfalfa. Bot.
zhur. 39 no.5:706-720 S-0 '54. (MLRA 7:11)

1. Molotovskiy Gosudarstvennyy universitet im. A.M.Gor'kogo.
(Grasses) (Alfalfa) (Botany--Ecology)

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342120001-7

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342120001-7"

PONOMAREV, A. N. Doc Biol Sci -- (diss) "Biology and ecology of the blossoming
and pollination of ~~alfalfa~~ and meadow-and-steppe grain." Len, 1957.
23 pp 22 cm. (Acad Sci USSR. Botanical Inst im V. L. Komarov), 100 copies.
(KL, 13-57, 98)

GLUMOV, G.A.; NAUGOL'NYKH, V.N.; PONOMAREV, A.N.

Perm Section of the All-Union Botanical Society. Bot. zhur. 44
no.3:427-428 Mr '59.
(MIRA 12:7)

1. Permskiy sel'skokhozyaystvennyy institut i Permskiy gosudarstvennyy
universitet.
(Perm--Botanical societies)

POHOM-REV, A.N.

In memory of Valerii Avgustovich Krueger. Bot zhur. 14 no.5:732-
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1. Permskiy gosuniversitet.
(Krueger, Valerii Avgustovich, 1890-1958)

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AUTHOR: Ponomarev, A. N.

SOV/20-127-3-66/71

TITLE: On the Biological Isolation of *Festuca sulcata* Hack. From
Festuca pseudovina Hack.

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 3, pp 710-712
(USSR)

ABSTRACT: Two species of fescue-grass (*Festuca*) (the species mentioned in the title) occur in the southern forest steppe of the Trans-Ural Region (Ref 2). The first species is considered to be a Pannonian-Pontian one whereas the second is widely distributed in the steppes of West-Siberia and Kazakhstan (Refs 2, 3). These two species are very similar to each other with regard to system and ecology. In the Troitskiy zapovednik (Troitskiy Preserve) (Oblast' of Chelyabinsk) they grow very often in the same phytocoenosis and the individual plants are in immediate vicinity to each other without showing any signs of ecological isolation. Nevertheless, these closely related species preserve their independence and can be clearly distinguished with regard to morphology. This phenomenon seems very peculiar; but it may be explained by the fact that these two species of fescue-grass do not flower simultaneously during day-time. Therefore they are

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Festuca pseudovina Hack.

biologically isolated in spite of their close vicinity. The author describes his observations of F. sulcata and compared them to observations of F. pseudovina. The phenomena accompanying the blossom of fescue-grass are described. Before flowering the plant remains for some time in the state of readiness; then suddenly most of the blossoms open within 15-30 minutes (Refs 5,6). F. pseudovina flowers about 1-2 days sooner than F. sulcata but the essential difference between the two species is that F. pseudovina opens its blossoms about 1 - 1.5 hours earlier than F. sulcata. The latter flowers and dusts at a time when F. pseudovina has already finished dusting. Thus is shown that these two species of fescue-grass do not only differ morphologically but also biologically in the daily rhythm of flowering. The author assumes similar phenomena also with other grass-varieties (Refs 7-11, 13-15). There are 15 references, 6 of which are Soviet.

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11 (4)

AUTHOR:

Ponomarev, A. N.

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TITLE:

On the Pollination of Steppe Sage (*Salvia stepposa Schost.*)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 4, pp 917 - 920
(USSR)

ABSTRACT:

The investigation described in the present paper was stimulated by publications by N. G. Kholodnyy (Refs 3-5) who maintained that sage varieties are pollinated by pollen falling down on the stigma from the air; the pollen was supposed to have been stirred by the insects leaving the blossom. Moreover, Kholodnyy and I. N. Olovyanikova (Ref 2) maintained that the insect cannot at all touch the stigma with its back or any other part of the body upon visiting the sage blossom. The author made his observations in the Tratsekiy zapovednik (Nature Reserve) in the years 1953-55. Although the structure of the sage blossom has been known and described since 1793 the older authors did not realize the existence of various forms of sage blossoms. This omission is made also in the most up-to-date botanical text-books. The author proved the existence of 2 forms of the blossom of steppe sage (the blossom of which is similar to that of common sage - *S.pratensis*): a)

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large bisexual blossom and b) a small female blossom (Fig 1a). The latter was formed by reduction from the former; there exist transitional varieties. Steppe sage is a gynodioecious and gyno-monoecious plant. Bisexual and purely female individuals occur. The occurrence of female varieties of steppe sage with small blossoms is not surprising; they occur frequently in the family of labiateae. The process of blooming is described. The bees favored the female blossoms because they contained more nectar. Thus, these blossoms received better pollination. The presence of 17 varieties of bees and humblesbees on the blossoms was observed (determinations by A. A. Ponomareva, at the Zoologicheskiy institut AN SSSR (Zoological Institute of the Academy of Sciences, USSR)). The most important pollinators were: Eucera longicornis L., Anthophora aestivalis Panz., Bombus serraquam F. Mor., Apis mellifica L., Bombus lucorum L. B. hifermanus Seidl. and B. scythes Scop. Eucera malea were especially numerous and pollinated the blossoms as perfectly as females. While observing the main pollinators the author saw clearly and frequently that the fork and anchor-shaped stigmas

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being in a somewhat downward position actually touch the back of these bees and thus receive the pollen. The pollen is obligatorily discharged on the back and not on the upper side of wings and abdomen as Kholodnyy maintained (in the case of *S.glutinosa*). The author never saw a little cloud of stirred pollen when a humblebee took off. The divergence of observation seems to be caused by the differences of the sage varieties observed. There are 1 figure and 9 references, 6 of which are Soviet.

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PONOMAREV, A.N.

Ecology of flowering and pollination in grasses. Nauch. dokl. vys. shkoly; biol. nauki no.1:80-86 '60. (MIRA 13:2)

1. Rekomendovana kafedroy morfologii i sistematiki rasteniy Permskogo gosudarstvennogo universiteta im. A.M. Gor'skogo.
(Fertilization of plants) (Grasses)